



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/802,177

03/17/2004

Timothy W. Mehnert

36185

3849

116

7590

09/08/2005

PEARNE & GORDON LLP

1801 EAST 9TH STREET

SUITE 1200

CLEVELAND, OH 44114-3108

EXAMINER

VASUDEVA, AJAY

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,177

Applicant(s)

MEHNERT, TIMOTHY W.

Examiner

Ajay Vasudeva

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The proposed addition of figure 7 in the replacement drawings received 6/23/2005 is acceptable. Applicant is requested to submit formal drawings.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the claim, use of "an indicator light" (emphasis added) renders the claim indefinite as it is not clear if such indicator light is same or different from the "indicator" recited previously in claim 1 (line 5).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 59-045295 A ('295).

JP ('295) shows an apparatus comprising a cam [40] coupled to a steering linkage bar [18] of a watercraft, and a switch [35] coupled to a fixed portion of the watercraft (figures 1, 2 and 3). Because the lower cowl structure of an outboard motor functions as a rudder, the position of the outboard motor corresponds to the position of the rudder. The cam activates the switch when the outboard motor – and therefore the rudder – is in a centered position. The switch that comes in contact with the cam when the rudder is in a centered position is considered equivalent to the “means for contacting the cam”.

A leaf spring [38] provided with the switch gets depressed when the steering linkage bar is in a centered position. Such depressed orientation of the leaf spring provides a visual indication of the rudder centering, and is therefore considered to be the “means for indicating” when the rudder is centered.

Alternatively, applicant may note that several other movable structures associated with the assembly – such as the upper cowl structure of the outboard motor – are capable of providing a visual indication of the rudder centering, and therefore can also be considered to be the “means for indicating” when the rudder is centered.

In yet another alternative embodiment shown in figure 8, a cam [84] is coupled to a steering linkage bar [80] of a watercraft, and a switch [86] is coupled to a fixed portion of the watercraft (see figures 8 and 9). The switch is considered equivalent to the “means for contacting the cam”. The rod [75] provides a visual indication of the rudder centering, and is therefore considered to be the “means for indicating”

Art Unit: 3617

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 59-045295 A ('295) in view of Ziehm (US 6,201,483 B1).

JP ('295) shows an apparatus comprising a cam [40] coupled to a steering linkage bar [18] of a watercraft, and a switch [35] coupled to a fixed portion of the watercraft (figures 1, 2 and 3). The switch is activated when the outboard motor of the watercraft is in a centered position, and allows a tilting operation of the motor only when such motor – and therefore the rudder of a watercraft -- is in a centered position. When not activated, the switch does not allow a tilting operation of the motor.

JP ('295), however, does not provide any visual or audio confirmation to the operator when the motor reaches a centered position. Specifically, JP ('295) is silent on:

- (i) the switch being electrically connected to an indicator light, or
- (ii) an indicator, in the form of an indicator light, being located on a dash of the watercraft.

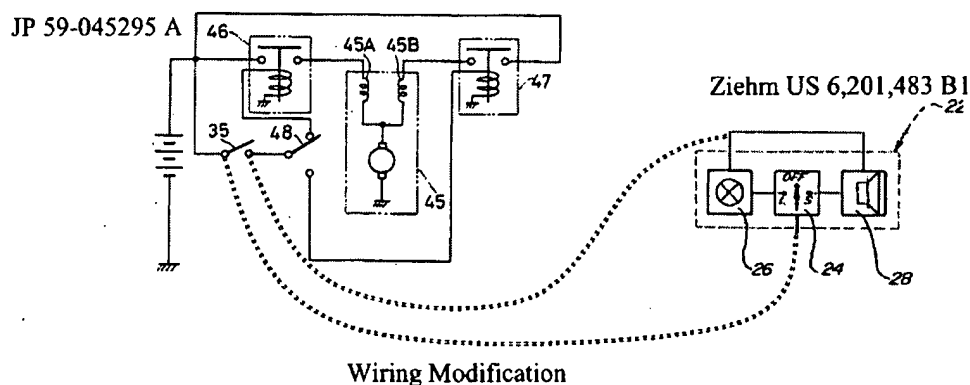
Ziehm shows boat having an indicator system to signal a centered position of a steering. The indicator system has an indicator light [26] that is activated by an electrically-connected switch [18] when the steering is in a centered position (col. 1, lines 36-48). The indicator light is

Art Unit: 3617

mounted on a panel adjacent the boat steering wheel or helm station (col. 2, lines 63-64). The "panel" is considered to be an equivalent of a "dash".

It would have been obvious for one skilled in the art at the time of the invention to connect an indicator light to the center-detecting switch of JP ('295), as taught by Ziehm. Having such indicator light would have been desirable to alert the operator of a malfunction in the tilting apparatus of the outboard motor. Such modification to JP ('295), as taught by Ziehm, would have helped a boat operator recognize that the tilting mechanism would respond only when the indicator light was illuminated. However, if the tilting mechanism failed to respond even when the indicator light was illuminated, it would clearly indicate a malfunctioning of the tilting mechanism.

As an additional advantage, such indicator light would have also provided a navigational assist mechanism for guiding the watercraft in a straight direction even in poor visibility conditions such as fog or darkness, which would have further improved the operational safety of the craft (*see below for a simplified illustration of one possible modification of JP '295, as modified by Ziehm*).



Further, it would have been obvious for one to provide the watercraft of JP ('295) with a dash to locate the light, as taught by Ziehm. Having such dash would have allowed one to group all indicator devices together at a single location, thereby allowing easy monitoring of the watercraft operational conditions. Additionally, placing the indicator light at the dash would have ensured that the operator did not miss the tilt-readiness signal or the steering centering signal.

JP ('295), as modified above by Ziehm, would have also met the requirements of claims 2-4, 6, 7, 10 and 11, as follows:

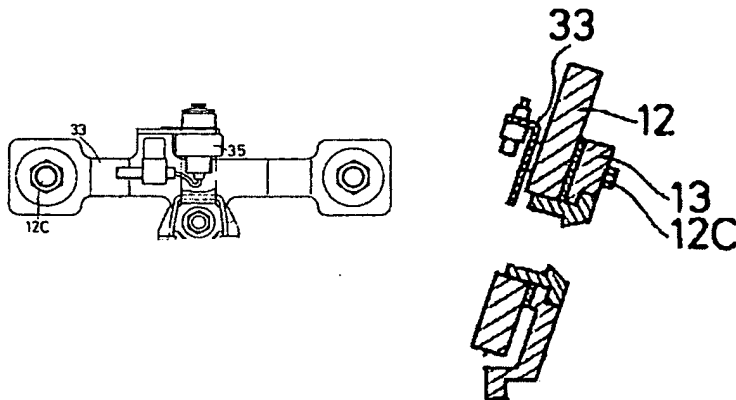
Re claim 2, the cam is coupled to the steering linkage bar via a clamp [43]. The phrase "clamp hose" has been broadly interpreted to mean a clamp that is capable of attaching over a tubular, or a hose shaped, structure. The clamp of JP ('295) meets such criterion, and is therefore considered to be a clamp hose.

Re claim 3, the switch is coupled to a fixed portion [12] of the watercraft by at least one bracket [33].

Re claim 4, small switches that are operative as "push button" or "snap-action" switches are commonly known as microswitches. The switch of JP ('295) meets such criteria, and is therefore considered to be a microswitch.

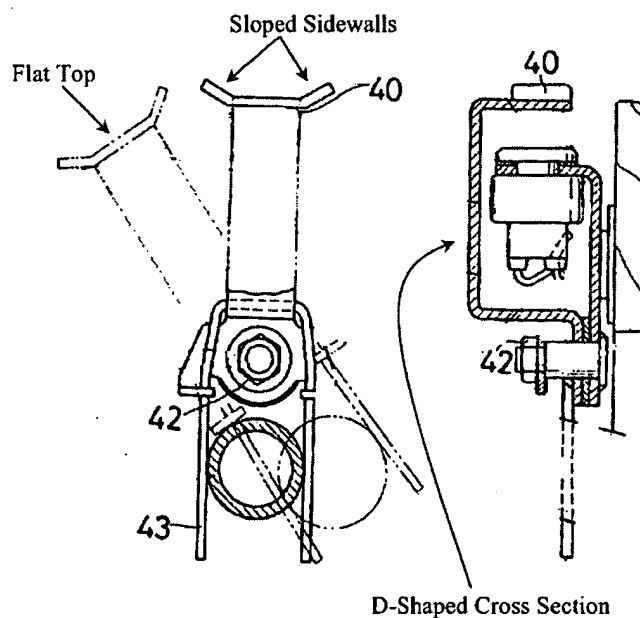
Re claim 6, the apparatus comprises a plurality of brackets [33,13], wherein a second bracket [13] and nut-bolt fasteners [12C] are employed to secure the first bracket [33] to the fixed portion of the watercraft. The switch – which itself is mounted on the first bracket – is therefore considered to be secured to the fixed portion of the watercraft by the first and second brackets. (*see simplified illustration below, as modified from figures 1 and 2*).

Art Unit: 3617



Further, a loosening of the bolts would allow both brackets to shift relative to the fixed portion of the watercraft, and would correspondingly change the position of the switch. Therefore, the brackets are considered as being adjustable by loosening of the nut-bolt fasteners, which will adjust the "sensitivity" of the switch, as broadly interpreted above.

Re claims 7, 10 and 11, the cam includes two sloped sidewalls, joined by a flat top portion. The cam has a substantially D-shaped cross-section. (*see simplified illustration below, as modified from figures 2 and 3*)



Response to Arguments

8. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay Vasudeva whose telephone number is (571) 272-6689. The examiner can normally be reached on Monday-Friday 12:00 -- 5:30 pm.


Art Unit: 3617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AV

Ajay Vasudeva
Examiner
Art Unit 3617


S. JOSEPH MORANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600